

alternative embodiment, lookup string field 605 is not displayed, or the display of lookup string field 605 is configurable by the user.

**[0154]** At this point the invention cannot determine whether the user is attempting to look up a directory record or direct-dialing a telephone number. In fact, the behavior of the user at this point is identical to the behavior of the user in the previous example prior to the display of screen 810, since in both cases the "B" key (having a secondary value of "7") was pressed. Thus, screen 900 is identical to screen 810.

**[0155]** Continuing to dial the number, the user presses the key having a numeric secondary value of "3". At this point, screen 901 is displayed, as depicted in Fig. 9B.

**[0156]** Since the primary value of the "3" key is the letter "I", screen 900 shows the results of a filtering operation on the directory using the lookup string "BI", including records from the directory that begin with the letters "BI". Again, additional records that begin with "BI" may be accessible via scrolling. Now, two records are displayed: Biff Henderson (since the first name begins with "BI") and John Birch (since the last name begins with "BI"). Lookup string field 605 now shows "bi".

**[0157]** Since the invention still cannot determine whether the user is performing directory lookup or direct-dial, feedback appropriate to directory lookup is still displayed. In fact, the behavior of the user at this point is identical to the behavior of the user in the previous example prior to the display of screen

820, since in both cases the "B" key and the "I" key (having secondary values of "7" and "3", respectively) were pressed. Thus, screen 901 is identical to screen 820.

**[0158]** Next, the user presses the key having a numeric secondary value of "0". At this point, screen 920 is displayed, as depicted in Fig. 9C. Dial string 611 is now displayed, and now reads "730", corresponding to the numeric values of the three keys thus far entered. Directory filtering feedback is no longer displayed.

**[0159]** The primary value of the "0" key is a symbol, which has special meaning when entering text. It is used for accessing special symbols that are not displayed on the keyboard. No records in the database begin with the string "BI" followed by a special symbol. Thus, the filtering operation on this lookup string yields no results, and no records are now displayed. The invention can now infer that the user is direct-dialing a number, since all the entered key-strokes have numeric values and the lookup string yields no results. Accordingly, dial string 611 is now highlighted to indicate that it is the only valid operation. However, if the user were to now press backspace key 203 at this point, deleting the "0", the lookup string would revert to "BI" and screen 901 would again be displayed.

**[0160]** At this point, the user simply enters the remaining digits in the number being dialed. Referring now to Fig. 9D, there is shown display screen 930 after the user has completed entry of a ten-digit telephone number. Hyphens

in dial string 611 may be added automatically, according to standard telephone number syntax. Once the user has finished entering the number, he or she presses space bar 207 or enter key 204 to dial the number. Alternatively, the user may tap the number on the screen (with a stylus or finger), or may press a jog rocker control (not shown).

**[0161]** In one embodiment, once the invention has reached a state where no records match the lookup string (e.g. screen 920), non-numeric keystrokes are rejected. Thus, if the user presses a key that does not have a numeric value, the invention may ignore the keystroke, or may provide feedback (such as a beep, for example) indicating that the entry is invalid.

**[0162]** Referring now to Figs. 6A through 6E, there are shown screen shots depicting an example of a directory filtering operation according to one embodiment of the present invention, where feedback for two operations is displayed concurrently when appropriate. The screen shots of Figs. 6A through 6E correspond to the method described above in connection with Fig. 3B. In the example shown, the user is attempting to look up John Birch's number in the directory in order to call him on his work telephone number.

**[0163]** Referring now to Fig. 6A, initial contact screen 600 is shown. Screen 600 may be activated, for example, by simply turning on device 100, or by entering a mode for directory lookup, or by activating a phone application. Screen 600 includes a number of contact records 601, scroll arrows 502 and 503